

Appln. No. 09/856,320  
Amd. dated May 4, 2004  
Reply to Office Action of November 4, 2003

**Amendments to the Claims**

This listing of claims will replace all prior versions,  
and listings of claims in the application:

**Listing of Claims:**

Claims 1-29 (Cancelled).

30 (Currently amended). An antibody against the protein  
according to claim ~~[[42]]~~ 58 or a fragment thereof.

31 (Currently amended). The antibody according to  
claim 30 which is a polyclonal antibody, a monoclonal antibody or  
~~a peptide~~ an antibody generated against a peptide fragment  
derived from a protein consisting of amino acid residues 54 to  
282 of SEQ ID NO:2.

Claims 32-36 (Cancelled).

37 (Currently amended). A ~~method~~ diagnostic marker for  
detecting a disease which consists of the protein of claim 58  
~~comprises measuring concentration, in blood or urine, of a~~  
~~protein as a diagnostic marker selected from the group consisting~~  
~~of:~~

~~(a) a protein having the amino acid sequence composed~~  
~~of 229 amino acid represented by residues 54 to 282 of SEQ ID~~  
~~NO:2 and having the serine protease activity;~~

~~(b) a protein encoded by a nucleotide which is hybridizable to a nucleotide complementary to a nucleotide having a nucleotide sequence represented by nucleotides 272 to 958 of SEQ ID NO:1 under stringent conditions, and having the same serine protease activity as that of the protein (a);~~

~~(c) a protein having the amino acid sequence composed of 229 amino acids represented by residues 48 to 276 of SEQ ID NO:4 and having the serine protease activity;~~

~~(d) a protein encoded by a nucleotide which is hybridizable to a nucleotide complementary to a nucleotide having a nucleotide sequence represented by nucleotides 244 to 930 of SEQ ID NO:3 under stringent conditions, and having the same serine protease activity as that of the protein (c);~~

~~(e) a protein having the amino acid sequence composed of 249 amino acids represented by residues 28 to 276 of SEQ ID NO:4 and, a mature form of which has the same serine protease activity as that of the protein (c);~~

~~(f) a protein encoded by a nucleotide which is hybridizable to a nucleotide complementary to a nucleotide having a nucleotide sequence represented by nucleotides 184 to 930 of SEQ ID NO:3 under stringent conditions and, a mature form of which has the same serine protease activity as that of the protein (c);~~

~~(g) a protein having the amino acid sequence composed of 276 amino acids represented by residues 1 to 276 of SEQ ID NO:4 and, a mature form of which has the same serine protease activity as that of the protein (c);~~

~~(h) a protein encoded by a nucleotide which is hybridizable to a nucleotide complementary to a nucleotide having a nucleotide sequence represented by nucleotides 103 to 930 of SEQ ID NO:3 under stringent condition, and a mature form of which has the same serine protease activity as that of the protein (c);~~

~~(i) a protein having the amino acid sequence composed of 254 amino acids represented by residues 22 to 275 of SEQ ID NO:6 and having the serine protease activity;~~

~~(j) a protein encoded by a nucleotide which is hybridizable to a nucleotide complementary to a nucleotide having a nucleotide sequence represented by nucleotides 114 to 875 of SEQ ID NO:5 under stringent conditions, and having the same serine protease activity as that of the protein (i);~~

~~(k) a protein having the amino acid sequence composed of 275 amino acids represented by residues 1 to 275 of SEQ ID NO:6 and, a mature form which has the same serine protease activity as that of the protein (i);~~

~~(l) a protein encoded by a nucleotide which is hybridizable to a nucleotide complementary to a nucleotide having a nucleotide sequence represented by nucleotides 51 to 875 of SEQ~~

Appln. No. 09/856,320  
Amd. dated May 4, 2004  
Reply to Office Action of November 4, 2003

~~ID NO:5 under stringent conditions, and a mature form of which  
has the same serine protease activity as that of the protein (i);  
and~~

~~(m) a modified derivative or fragment of those proteins  
(a) to (l).~~

38 (Currently amended). The method diagnostic marker  
according to claim 37, wherein the disease is Alzheimer's  
disease or epilepsy in the brain.

39 (Currently amended). The method diagnostic marker  
according to claim 37, wherein the disease is cancer or  
inflammation of brain, medulla, prostate, placenta, heart,  
testicle or lung.

40 (Currently amended). The method diagnostic marker  
according to claim 37, wherein the disease is sterility in semen  
or ~~sperms~~ sperm.

41 (Currently amended). The diagnostic marker according  
to claim 37, wherein the disease is ~~to be used for diagnosis of~~  
prostatic hypertrophy in the prostate.

Claims 42-50 (Cancelled).

51 (Currently amended). A pharmaceutical composition  
comprising the protein according to claim ~~[[42]]~~ 58.

Appln. No. 09/856,320

Amd. dated May 4, 2004

Reply to Office Action of November 4, 2003

Claims 52-57 (Cancelled).

58(New). A protein consisting of amino acid residues  
54 to 282 of SEQ ID NO:2.